

VII. OPTIONS STUDIED BUT NOT PURSUED

There were several short-term and long-term options that were developed based upon the data collected and analyzed, field observations, and community input that are **not** recommended. These options have been dropped for further consideration for a variety of reasons including potential displacements to the surrounding community and businesses, the option not fulfilling the purpose and need of the project, too many negative impacts associated with the option, and community input and opposition. The following section describes the alternative that was studied and provides reasons as to why it is not being recommended for further consideration.

A. Short Term Options

The following options were studied as short term options for the project but are not being recommended for further study.

1. COMMUNITY CIRCULATION: Roadway Improvements – Create a Free Flowing Eastbound Right Turn Lane onto Branch Avenue

The intersection of Pennsylvania Avenue, SE/Branch Avenue experiences delays during both the AM and PM peak period. At this intersection there is a high eastbound right turn volume from Pennsylvania Avenue, SE onto southbound Branch Avenue. Currently this eastbound right turn maneuver is stopped during the pedestrian phase of the traffic light, as well as stopped during the through phase for Branch Avenue. It was noted that the southbound through traffic at this intersection is not high and could operate using only one of the two shared through lanes provided without compromising the capacity of the intersection. An option was created to utilize the outside southbound lane on Branch Avenue south of Pennsylvania Avenue, SE as the accepting lane for the eastbound right turn lane, thereby establishing a free flowing right at this location, except during the pedestrian phase of the light where it will be stopped with a red light. In order to utilize the outside southbound lane on Branch Avenue as an accepting lane to establish an eastbound free flowing right turn lane, the outside southbound lane north of Pennsylvania Avenue, SE must end as a channelized right turn lane at the intersection. This recommendation is illustrated in the figure below.



FIGURE 42: Establish an eastbound free flowing right turn onto southbound Branch Avenue.

Benefits: The free flowing eastbound right turn lane will allow for a greater volume of vehicles to clear the intersection, thereby increasing the efficiency of all vehicles passing through this intersection. This will aid in reducing the queue for this right turn lane, as well as improving the LOS for the intersection during the PM peak period. The 2025 No Build Conditions for this intersection during the AM and PM peak periods are F and E, respectively. With this improvement, the LOS will improve to an F and D for the AM and PM peak periods respectively. Results of the analysis are located in Appendix I.

Anticipated Issues: With the introduction of the free flowing right turn lane, pedestrians will be required to utilize the push buttons in order to cross Branch Avenue at this location.

Costs: The anticipated cost for this improvement is approximately **\$35,000***.

* Note: Cost does not include construction cost administration/overhead, engineering costs, escalation costs, or right-of-way costs.

This recommendation is not being pursued due to citizen comments against the option.

2. COMMUNITY CIRCULATION: Traffic Calming – Close Fairlawn Avenue to Deter Cut-Through Traffic

Motorists traveling southbound on Minnesota Avenue are currently cutting through neighborhoods to access Fairlawn Avenue which can then be used a shortcut through the Citgo Gas Station to Pennsylvania Avenue, SE westbound. The desire is so great that motorists are ignoring the fact that Fairlawn Avenue is posted as one-way northbound during the AM and PM peak hours. Because Fairlawn Avenue is classified as an official on-road bicycle route, it is recommended that bollards be used to block motorists from using the southern portion of Fairlawn Avenue while still allowing bicyclists to access the bike route. The bollards are recommended to be placed just south of Fairlawn Avenue/L'Enfant Square and also at the intersection of Pennsylvania Avenue, SE/Fairlawn Avenue.

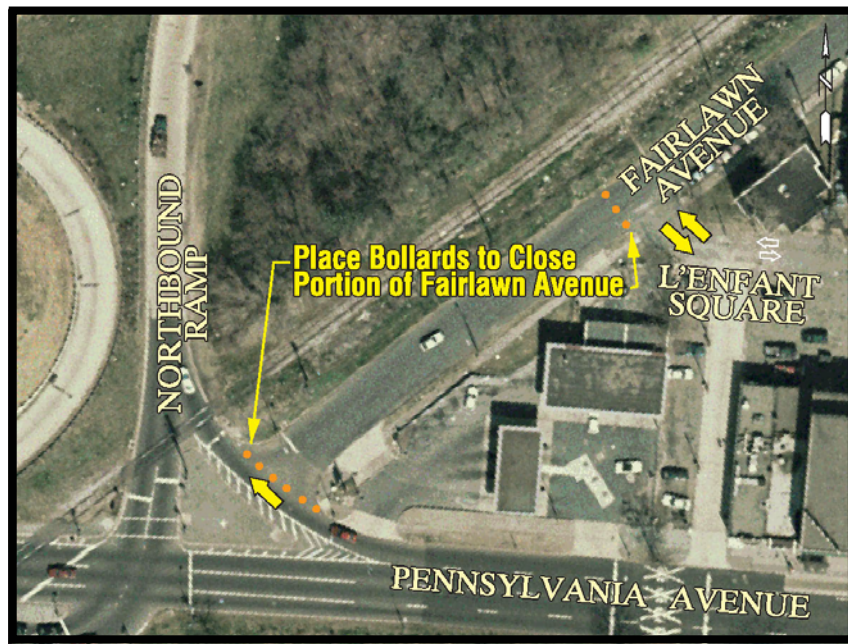


FIGURE 43: Bollards closing Fairlawn Avenue to cut-through traffic

Benefits: The benefit of this recommendation is it deters motorists from cutting through the communities and traveling in the wrong direction on Fairlawn Avenue. This option improves pedestrian safety as well as vehicular safety in the community.

Anticipated Issues: There is a Citgo Gas Station located on the corner of Fairlawn Avenue and Pennsylvania Avenue, SE. By creating this closure at the Fairlawn Avenue and L'Enfant Square intersection, the two existing access points on Fairlawn Avenue that leads into the Citgo Gas Station will be eliminated. It should be noted that there are two access points on Pennsylvania Avenue, SE.

This closure would also prohibit direct access to Pennsylvania Avenue, SE for the residents within this community

Costs: The total cost for this recommendation is approximately **\$22,000***

* Note: Cost does not include construction cost administration/overhead, engineering costs, escalation costs, or right-of-way costs.

This recommendation is not being pursued due to citizen comments against the option.

3. COMMUNITY CIRCULATION: Turn Lane Lengths – Increase Turn Lane Lengths to Accommodate Turning Volumes

The intersection of Pennsylvania Avenue, SE/27th Street has one approach in which the turn lane does not currently accommodate the queue length. The lane that is not accommodated is the left turn lane from northbound 27th Street to westbound Pennsylvania Avenue, SE. At the intersection of Pennsylvania Avenue, SE/27th Street, extending the left turn lane to accommodate the queue would put the left turn lane into the intersection of 27th Street/Q Street. Therefore the lane would not be extended beyond this point. In order to extend this lane, the existing on-street parking along the east side of 27th Street would need to be eliminated.

Benefits: By extending the storage length, the queue will be accommodated at these intersections.

Anticipated Issues: Based on the parking inventory and utilization study, this area of 27th Street has a 42% utilization rate of its on-street parking. Eliminating the parking on the east side will increase the utilization rate for the remaining parking spaces available. At various times during the day, there may not be adequate parking available along this block.

Costs: The total cost to extend the turn lane at the intersection of Pennsylvania Avenue, SE/Southern Avenue is approximately **\$1,500***.

* Note: Cost does not include construction cost administration/overhead, engineering costs, escalation costs, or right-of-way costs.

This recommendation is not being pursued due to citizen comments against the option.

B. Long Term Options

The following options were studied as long term options for the project but are not being recommended for further study.

1. PEDESTRIAN ACCESSIBILITY AND TRANSIT FACILITIES: *Transit – Provide Bus Pull-over Lane at L’Enfant Square*

There is currently a bus stop located on southbound Minnesota Avenue, just north of Pennsylvania Avenue, SE. One of the southbound lanes is impeded each time the buses pick up and/or discharge passengers. The community asked that a bus pull-over lane be placed at this location. There would be a designated concrete pad in the bus only lane.



FIGURE 44: Bus Pull-Over Lanes at L-Enfant Square

Benefits: The bus pull-over lane will remove stopped buses from impeding the southbound through traffic movement in this area. It should be noted that there is space available to accommodate this improvement. This improvement would only be provided if the Pennsylvania Avenue intersection is not reconstructed as a single intersection, an earlier recommendation.

Anticipated Issues: It may be difficult for busses to re-enter the southbound traffic from this separate bus pull-over lane. Another possible issue could be the loss of green space. It was also stated that bus pull-over lanes are not used by buses due to their inability to gain re-access to the roadway.

Costs: The total cost for this recommendation is approximately **\$35,500***

* Note: Cost does not include construction cost administration/overhead, engineering costs, escalation costs, or right-of-way costs.

2. PEDESTRIAN ACCESSIBILITY AND TRANSIT FACILITIES: Transit – Provide Westbound HOV lanes During the AM Peak Hour

Currently there are a minimum of two lanes in each direction along Pennsylvania Avenue, SE throughout the study limits. There are numerous buses traveling along the corridor. On several occasions, citizens recommended that a right turn only/bus lane/HOV lane be provided in the westbound direction for the AM peak period. This alternative would require an HOV analysis which is not currently included in this study. However, after the preliminary examination, this alternative is not being recommended for several reasons. The primary reason is that by limiting the outside westbound lane during the AM peak period, the pedestrian and vehicular access into and out of the adjoining communities would be significantly impacted by the vehicular congestion on the roadway. In addition, this is a short distance to be considered for an HOV lane and would be difficult to enforce. Finally, if the lane is to be shared by both HOV and buses, there would be little benefit to the HOV as these vehicles would be trapped behind the bus at each of the bus stop locations. This would hurt the overall LOS of the corridor.

3. OVERALL CIRCULATION OF PENNSYLVANIA AVENUE, SE: Reversible Lanes – Revise Operations

The eastbound reversible lane extends from 27th Street to Branch Avenue and is in operation from 4:00 PM to 6:30 PM. The reversible lane is a westbound lane throughout the remainder of the day. Consideration was given to two alterations associated with the reversible lane operations.

The first alteration included four westbound lanes and one eastbound lane (with no left turns allowed) during the AM peak hour. More specifically, there would be four westbound lanes between Branch Avenue and Anacostia Freeway (I-295) and three eastbound lanes through Minnesota Avenue. This was a suggestion from citizens. There are a couple of benefits associated with this alteration. This would accommodate the 75/25 split of traffic in the AM peak hour. In addition, this type of configuration would provide the least amount of network delay. When the 2025 No-Build Traffic Volumes were put into this proposed lane configuration, the Levels of Service virtually stayed the same except there was a major decrease in delay at Branch Avenue at the intersection of Pennsylvania Avenue, SE/Minnesota Avenue where the LOS improved from an F to a D during the AM peak hour. There are several anticipated issues. First, no left turns would be allowed on eastbound Pennsylvania Avenue, SE. Second, emergency vehicles may have accessibility issues with only one eastbound lane. Finally, there would

a cost to reconstruct Pennsylvania Avenue, SE between 27th Street and Minnesota Avenue.

The second alteration included no reversible lanes and maintaining the three westbound lanes and two eastbound lanes. This alteration provides a couple of benefits. First, it is anticipated that the center lane, which has been witnessed to be underutilized during the PM peak hour, would be more utilized. Finally, there is the cost savings associated with upgrading the current reversible lane system to meet the requirements put forth in the MUTCD. When the 2025 No-Build Traffic Volumes were put into this proposed lane configuration the levels of service virtually stayed the same except at the intersection of Pennsylvania Avenue, SE/Minnesota Avenue where the LOS minimally improved from an F to an E during the PM peak hour. There are also a couple of anticipated issues associated with this alteration. First, the Pennsylvania Avenue, SE/Branch Avenue intersection would operate at a LOS F during the PM peak hour. Second, there would be the cost to reconstruct Pennsylvania Avenue, SE between 27th Street and Minnesota Avenue.

It is recommended that neither of these alternative realignments of the reversible lanes be carried forward.

***4. OVERALL CIRCULATION OF PENNSYLVANIA AVENUE, SE:
Interchange Configuration - Place Loop Ramp on the Southeastern Quadrant
of Pennsylvania Avenue, SE/Anacostia Freeway (I-295) Interchange***

The existing interchange of the Anacostia Freeway (I-295) and Pennsylvania Avenue, SE provides an eastbound Pennsylvania Avenue, SE to northbound Anacostia Freeway (I-295) movement with dualized eastbound left turn lanes to the on-ramp in the northeastern quadrant of the interchange. This is a very high left turning volume, which operates at a LOS of F in the AM Peak period. This results in long queues that sometimes extend into the eastbound through lanes along Pennsylvania Avenue, SE. This alternative provides that a loop ramp be constructed in the southeast quadrant of the interchange to accommodate the eastbound Pennsylvania Avenue, SE to northbound I-295 movement. This improvement would also require that the exit ramp from northbound Anacostia Freeway (I-295) to eastbound Pennsylvania Avenue, SE, by way of Fairlawn Avenue, be reconstructed in order to properly design the loop ramp.



FIGURE 45: Loop Ramp from Eastbound Pennsylvania Avenue, SE to Northbound Anacostia Freeway (I-295)

Benefits: The benefits with constructing a loop ramp in the southeast quadrant to accommodate travelers along eastbound Pennsylvania Avenue, SE to northbound Anacostia Freeway (I-295) are:

- The eastbound queues associated with the existing left turn maneuver from Pennsylvania Avenue, SE to the Northbound On-Ramp to Anacostia Freeway (I-295) will be eliminated. Not only will this improve the efficiency of traffic heading eastbound on Pennsylvania Avenue, SE, but safety will also be improved.

- Vehicles wanting to travel northbound on the Anacostia Freeway (I-295) will not have to cross westbound traffic and the need for a signal would be eliminated.
- The efficiency of vehicles traveling westbound on Pennsylvania Avenue will be improved since the conflict with eastbound left turning vehicles will be eliminated along the traffic signal at this intersection of Pennsylvania Avenue, SE/Northbound On-Ramps to Anacostia Freeway (I-295). This means that any motorist traveling through this intersection will experience less delay.
- Traffic volumes will be reduced along the entrance ramp that currently exists in the northeast quadrant. Motorists using this ramp will experience less delay.

Anticipated Issues: There are several issues associated with this alternative. First, it is anticipated that this option would require the purchase of additional right-of-way to accommodate the new loop ramp as well as the reconstruction and relocation of the exit ramp from northbound Anacostia Freeway (I-295) to eastbound Pennsylvania Avenue, SE. This relocation was necessary due to the required size of the loop ramp, the location of the Anacostia Freeway (I-295) and the location of Fairlawn Avenue. Second, the introduction of a loop ramp in this quadrant could also create weaving issues along eastbound Pennsylvania Avenue, SE and northbound I-295. A weaving analysis would be needed to determine if the location of the proposed loop ramp provides adequate distance for weaving on both roadways. In a further complication, it appears that the proposed loop ramp will traverse the CSX rail line. This will require one of several things to occur. Either the CSX rail line will need to be relocated, or the design speed for the loop ramp will have to drop below the 20 MPH design speed utilized for the layout. The loop ramp construction would require that the existing ramp from northbound Anacostia Freeway (I-295) to eastbound Pennsylvania Avenue, SE be relocated. The new exit ramp must be constructed so that it ties in with Fairlawn Avenue since the location of the CSX rail lines prohibits direct tie in to Pennsylvania Avenue, SE. Fairlawn Avenue is a two-way collector road that handles local traffic in the immediate area. The reconstructed exit ramp would introduce a stop-controlled intersection along Fairlawn Avenue, thereby negatively impacting the community by introducing long distance interstate through trips onto a local collector roadway. Vehicles would then need to travel north on Fairlawn Avenue to access eastbound Pennsylvania Avenue, SE.

Due to significant negative impacts associated with this alternative, it is not being recommended for further study.

Costs: The estimated cost to construct these improvements would range from **\$5 million to \$8 million dollars***.

* Note: Cost does not include construction cost administration/overhead, engineering costs, escalation costs, or right-of-way costs.

**5. OVERALL CIRCULATION OF PENNSYLVANIA AVENUE, SE:
Interchange – Place an Interchange at Pennsylvania Avenue, SE/Minnesota
Avenue**

The intersection of Pennsylvania Avenue, SE/Minnesota Avenue is very congested, especially during the peak hours. The community asked that an interchange be considered at this location. The project would primarily consist of bridging one road over the other and the construction of on and off ramps. There are a variety of interchange types that could potentially be used for this intersection. However, the best option for this particular intersection is a single point urban interchange (SPUI). This type of interchange is typically used in tight urban areas.

Benefits: The addition of an SPUI will increase the capacity of this intersection. Motorists will be able to enter and leave the interchange more efficiently. Drivers making right turns will have a smooth transition onto the other roadway, sometimes even without stopping. Most SPUIs need a minimal amount of right of way when compared to a conventional type design such as the existing interchange at Pennsylvania Avenue, SE/Anacostia Freeway (I-295). Each on and off ramp typically ranges from approximately 400-1200 feet in length. The allowance of concurrent left turns, using a three phase traffic signal allows for greater vehicular capacity.

Anticipated Issues: There are numerous issues associated with the construction of an SPUI at this location. The fact that one road would be elevated over the other road would have a visual impact to the community, which would act as a barrier and literally divide the community. The addition of an interchange in this location may have the undesired effect of increasing the speed and volume of traffic on this section of Minnesota Avenue. The layout of the interchange would result in a number of displacements to the properties in the immediate vicinity of the intersection. The construction cost of the alternative may be prohibitively high. These facilities typically cost 20 to 25 million dollars, which excludes the cost of additional right-of-way and maintenance of traffic. Finally, the properties in the immediate vicinity of the interchange would not be allowed access from the major road, thereby having a significant impact on a major economic development target area.

In light of the numerous issues and the severity of the issues associated with this concept, no lay out or costs were developed for this option and it is not being recommended for further study.